

***Potentilla quinquefolia* Rydb.**

five-leaved cinquefoil
Roseaceae (Rose Family)

Status: State Threatened

Rank: G4S1

General Description: Adapted from Hitchcock et al. (1961): A perennial herb with a rather small, branched crown and short, ascending rootstocks. The leaves are grayish-woolly on the lower surfaces. The upper surfaces of the leaves are greenish and finely covered with rough, stiff trichomes and long silky, slender hairs, which are usually appressed. The stems are ascending to erect, grayish-woolly, and 4 to 8 in. (10 to 20 cm) long. The numerous basal leaves are mostly arranged with three leaflets, but in part often have 5 leaflets which are usually palmate or sometimes more nearly pinnate. The leaflets are more or less oblong, $\frac{1}{4}$ to $1\frac{1}{8}$ in. ($\frac{1}{2}$ to 3 cm) long, with teeth or lobes for most of the length, the teeth are oblong-rounded, extending about halfway to the midvein. There are usually 1 or 2 stem leaves that are not much reduced and often glandular as well as possessing long, silky, slender, appressed hairs. The cymes are rather closely several-flowered and conspicuously bracteate. The calyx is bowl shaped, covered with long soft, silky, fine, slender appressed hairs or trichomes, barely $\frac{1}{4}$ in. (1 cm) wide even in fruit, with lanceolate lobes, and it is $\frac{1}{8}$ in. (3 to 4 mm) long. The yellow petals are obcordate and slightly longer than the sepals. There are usually 20 stamens and numerous pistils. The slender style is glandular-thickened, possesses trichomes (hairs) at the base, is nearly apical on the ovary, and is longer than the smooth, $\frac{1}{16}$ in. ($\frac{1}{2}$ mm) achene.

Identification Tips: *Potentilla quinquefolia* is most closely related to *P. pensylvanica*. These two species can be distinguished by their height and leaves. The plants of *P. quinquefolia* are mostly less than 8 in. (20 cm) tall and its leaves are usually at least in part ternate with never more than 5 leaflets. The plants of *P. pensylvanica* are mostly 8 to $19\frac{1}{4}$ in. (20 to 50 cm) tall and have 5 to 11 leaflets, with at least 5 on some of the leaves. *P. quinquefolia* is more or less intermediate in nature between *P. nivea* and *P. concinna*, but *P. quinquefolia* has more erect stems and smaller flowers than *P. concinna*, and more leafy flower clusters and slightly smaller flowers than *P. nivea*. A technical key is recommended.

Phenology: Identifiable from June to July.

Range: This species can be found from British Columbia to Saskatchewan, southward in the Rocky Mountains to Colorado and Utah, also in south-central Oregon, and is known from one disjunct population in Okanogan County, Washington.

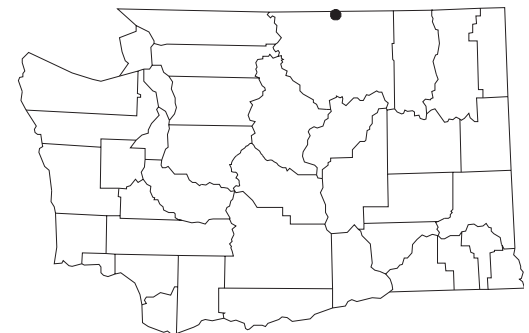
Potentilla quinquefolia

five-leaved cinquefoil



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Known distribution of
Potentilla quinquefolia
in Washington



● Current (1980+)
○ Historic (older than 1980)

Potentilla quinquefolia
five-leaved cinquefoil



Photo by Mark Sheehan



Photo by Mark Sheehan

Washington Natural Heritage Program Photo



Potentilla quinquefolia
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Habitat: *Potentilla quinquefolia* grows in alpine and subalpine gravelly meadows and river bars. In Washington, this species occurs along a summit ridge at an elevation of 7800 ft (2377 m). Associated species include sedge (*Carex* spp.), moss campion (*Silene acaulis*), slender mountain sandwort (*Arenaria capillaris*), tufted fescue (*Festuca ovina*), milkvetch (*Astragalus* sp.), cutleaf daisy (*Erigeron compositus*), white arctic mountain heather (*Cassiope tetragona*), yarrow (*Achillea* sp.), common juniper (*Juniperus communis*), and sandwort (*Arenaria* sp.).

Ecology: This species prefers moist to dry gravelly areas at mid to high elevations.

State Status Comments: This species is known from one recent occurrence in Okanogan County.

Inventory Needs: Gravelly meadows and river bars at mid-high elevations in Okanogan County should be systematically surveyed for additional populations.

Threats and Management Concerns: Definite threats have not been identified. However, the small range of this taxon in Washington and the small number of known occurrences are major concerns.

Comments: Synonyms for *Potentilla quinquefolia* include *Potentilla nivea* var. *pentaphylla*, *Potentilla altaica*, *Potentilla nivea* ssp. *chionodes*, *Potentilla nivea* var. *macrophylla*, *Potentilla nivea* ssp. *subquinata*, and *Potentilla quinquefolia*.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle, WA. 614 pp.

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